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Application ID: 10612241  
Title of Invention: MULTI-LEVEL MICROCHANNEL  
HEAT EXCHANGERS  
First Named Inventor: James Lovette  
Domestic/Foreign Application: Domestic Application  
Filing Date: 2003-07-01  
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Statement  
Filing Type:  
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Attorney Docket Number: NONE




Total Fees Authorized:

Digital Certificate Holder: cn=Thomas B. Haverstock,ou=Registered Attorneys,ou=Patent and  
Trademark Office,ou=Department of Commerce,o=U.S. Government,c=US  
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**TRANSMITTAL**

Electronic Version v1.1

Stylesheet Version v1.1.0


| <b>Title of<br/>Invention</b>  | <b>MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS</b> |                |                           |             |                |  |       |            |  |            |
|--|---|----------------|---------------------------|-------------|----------------|--|-------|------------|--|------------|
| Application Number: 10/612241    |   |                |                           |             |                |  |       |            |  |            |
| Date: 2003-07-01   |   |                |                           |             |                |  |       |            |  |            |
| First Named Applicant: James Lovette   |   |                |                           |             |                |  |       |            |  |            |
| Confirmation Number: 3319  |   |                |                           |             |                |  |       |            |  |            |
| Attorney Docket Number:  |   |                |                           |             |                |  |       |            |  |            |
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| <table border="1"><thead><tr><th>Submitted by:</th><th>Elec. Sign.</th><th>Sign. Capacity</th></tr></thead><tbody><tr><td>Thomas B. Haverstock<br/>Registered Number: 32571</td><td>/tbh/</td><td>Attorney</td></tr></tbody></table>   |   |                | Submitted by:             | Elec. Sign. | Sign. Capacity | Thomas B. Haverstock<br>Registered Number: 32571 | /tbh/ | Attorney   |  |            |
| Submitted by:  | Elec. Sign.                                     | Sign. Capacity |                           |             |                |  |       |            |  |            |
| Thomas B. Haverstock<br>Registered Number: 32571   | /tbh/   | Attorney       |                           |             |                |  |       |            |  |            |
| <table><tr><td>Documents being submitted</td><td>Files</td></tr><tr><td>us-ids</td><td>COOL01400C-usidst.xml</td></tr><tr><td></td><td>us-ids.dtd</td></tr><tr><td></td><td>us-ids.xsl</td></tr></table>   |   |                | Documents being submitted | Files       | us-ids         | COOL01400C-usidst.xml                            |       | us-ids.dtd |  | us-ids.xsl |
| Documents being submitted  | Files   |                |                           |             |                |  |       |            |  |            |
| us-ids   | COOL01400C-usidst.xml                           |                |                           |             |                |  |       |            |  |            |
|  | us-ids.dtd                                      |                |                           |             |                |  |       |            |  |            |
|  | us-ids.xsl                                      |                |                           |             |                |  |       |            |  |            |
| Comments   |   |                |                           |             |                |  |       |            |  |            |



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

| Title of Invention   | MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS |             |            |                     |      |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|--|--|-------------|------------|---------------------|------|-------|----------|------|----------|------------|------|----------|------|-------|----------|--|---|---------|------------|------------|----|--|--|--|---|---------|------------|--------------|----|--|--|--|---|---------|------------|--------------|----|--|--|--|---|---------|------------|-----------------|----|--|--|--|---|---------|------------|-------------|----|--|--|--|---|---------|------------|-------|----|--|--|--|---|---------|------------|---------------|----|--|--|--|---|---------|------------|-------|----|--|--|--|---|---------|------------|--------------|----|--|--|------|----------|----------|------|-----------|------|-------|----------|--|---|-------------|------------|---------------|----|--|--|--|---|-------------|------------|---------------------|----|--|--|--|---|-------------|------------|--------|----|--|--|
| <p>Application Number: 10/612241 </p> <p>Confirmation Number: 3319</p> <p>First Named Applicant: James Lovette</p> <p>Attorney Docket Number:</p> <p>Search string: ( 6443222 or 6444461 or 6457515 or 6537437<br/>or 6543521 or 6553253 or 6588498 or 6591625<br/>or 6632655 or 20010016985 or 20010024820 or<br/>20010045270 or 20010046703 ),pn.</p> <h3>US Patent Documents</h3> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>6443222</td><td>2002-09-03</td><td>Yun et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>2</td><td>6444461</td><td>2002-09-03</td><td>Knapp et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>3</td><td>6457515</td><td>2002-10-01</td><td>Vafai et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>4</td><td>6537437</td><td>2003-03-25</td><td>Galambos et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>5</td><td>6543521</td><td>2003-04-08</td><td>Sato et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>6</td><td>6553253</td><td>2003-04-22</td><td>Chang</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>7</td><td>6588498</td><td>2003-07-08</td><td>Reysin et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>8</td><td>6591625</td><td>2003-07-15</td><td>Simon</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>9</td><td>6632655</td><td>2003-10-14</td><td>Mehta et al.</td><td>B1</td><td></td><td></td></tr></tbody></table> <h3>US Published Applications</h3> <p>Note: Applicant is not required to submit a paper copy of cited US Published Applications</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Pub. No.</th><th>Date</th><th>Applicant</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>20010016985</td><td>2001-08-30</td><td>Insley et al.</td><td>A1</td><td></td><td></td></tr><tr><td></td><td>2</td><td>20010024820</td><td>2001-09-27</td><td>Mastromatteo et al.</td><td>A1</td><td></td><td></td></tr><tr><td></td><td>3</td><td>20010045270</td><td>2001-11-29</td><td>Bhatti</td><td>A1</td><td></td><td></td></tr></tbody></table> |  |             |            |                     |      |       |          | init | Cite.No. | Patent No. | Date | Patentee | Kind | Class | Subclass |  | 1 | 6443222 | 2002-09-03 | Yun et al. | B1 |  |  |  | 2 | 6444461 | 2002-09-03 | Knapp et al. | B1 |  |  |  | 3 | 6457515 | 2002-10-01 | Vafai et al. | B1 |  |  |  | 4 | 6537437 | 2003-03-25 | Galambos et al. | B1 |  |  |  | 5 | 6543521 | 2003-04-08 | Sato et al. | B1 |  |  |  | 6 | 6553253 | 2003-04-22 | Chang | B1 |  |  |  | 7 | 6588498 | 2003-07-08 | Reysin et al. | B1 |  |  |  | 8 | 6591625 | 2003-07-15 | Simon | B1 |  |  |  | 9 | 6632655 | 2003-10-14 | Mehta et al. | B1 |  |  | init | Cite.No. | Pub. No. | Date | Applicant | Kind | Class | Subclass |  | 1 | 20010016985 | 2001-08-30 | Insley et al. | A1 |  |  |  | 2 | 20010024820 | 2001-09-27 | Mastromatteo et al. | A1 |  |  |  | 3 | 20010045270 | 2001-11-29 | Bhatti | A1 |  |  |
| init   | Cite.No.                                 | Patent No.  | Date       | Patentee            | Kind | Class | Subclass |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 1  | 6443222     | 2002-09-03 | Yun et al.          | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 2  | 6444461     | 2002-09-03 | Knapp et al.        | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 3  | 6457515     | 2002-10-01 | Vafai et al.        | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 4  | 6537437     | 2003-03-25 | Galambos et al.     | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 5  | 6543521     | 2003-04-08 | Sato et al.         | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 6  | 6553253     | 2003-04-22 | Chang               | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 7  | 6588498     | 2003-07-08 | Reysin et al.       | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 8  | 6591625     | 2003-07-15 | Simon               | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 9  | 6632655     | 2003-10-14 | Mehta et al.        | B1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
| init   | Cite.No.                                 | Pub. No.    | Date       | Applicant           | Kind | Class | Subclass |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 1  | 20010016985 | 2001-08-30 | Insley et al.       | A1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 2  | 20010024820 | 2001-09-27 | Mastromatteo et al. | A1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |
|  | 3  | 20010045270 | 2001-11-29 | Bhatti              | A1   |       |          |      |          |            |      |          |      |       |          |  |   |         |            |            |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |              |    |  |  |  |   |         |            |                 |    |  |  |  |   |         |            |             |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |               |    |  |  |  |   |         |            |       |    |  |  |  |   |         |            |              |    |  |  |      |          |          |      |           |      |       |          |  |   |             |            |               |    |  |  |  |   |             |            |                     |    |  |  |  |   |             |            |        |    |  |  |

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|---------------|---|-------------|------------|--------------|----|
|               | 4 | 20010046703 | 2001-11-29 | Burns et al. | A1 |
| Signature     |   |             |            |              |    |
| Examiner Name |   |             | Date       |              |    |
|               |   |             |            |              |    |